TRAFFIC ENGINEERING

A Digest of Current Literature
on Street and Highway Traffic
and
News of the Institute of Traffic Engineers

Published Monthly by the
INSTITUTE OF TRAFFIC ENGINEERS
60 JOHN STREET, NEW YORK, N. Y.

Subscription One Dollar a Year *Single Copies Twenty-five Cents*

EDITED BY THE LIBRARY COMMITTEE: B. D. Greenshields, Chairman; E. A. Barton, R. Blanchérie, O. M. Gunderson, J. G. Hayden, A. C. Hough, L. F. Rader, K. M. Reid, P. X. Rice, H. W. Tillapaugh, T. T. Wiley.

VOL. IX October, 1938 No. 6

84 - ACCIDENTS - General

"Accidents and Exposure" - Harry R. DeSilva, Harvard Traffic Bureau (Highway Research Abstracts, No. 53, September, 1938, p.7)

It has often been argued that the farther a motorist drives and the more he is exposed, the more accidents he will have. It is certainly reasonable to assume that those persons with the most mileage ought to have the most accidents. But the facts we have gathered on the estimated mileage of repeaters versus accident-free drivers indicate that exposure has little or no effect on accidents. For example, in one city repeaters averaged 13,100 miles per year while the average driver operated 13,000 miles per year. In another city repeaters averaged 13,500 and normal drivers 15,570.

Among repeater drivers were found two extreme classes as regards mileage: those who drove over 20,000 miles per year and those who drove less than 2,000 miles. The former include commercial and salesmen drivers whose occupation requires them to travel constantly. The latter include usually young or elderly persons who have the occasional use of the family car, or a friend's car. It also includes the "floating driver" who works for short periods of time for taxicab or commercial companies. There are also many repeaters with normal mileages. It cannot be maintained that the accident repeater collectively is a high mileage driver. On the average he has no more exposures than the unselected motor car driver.

85 - ACCIDENTS - General

"Dangers of Mixed Traffic" (Highway Research Abstracts, No. 54, October, 1938,.p.9)

"American roads are nearly twice as safe as the British", writes

Combined Publications — TRAFFIC ENGINEERING combines the Publications "Traffic Digest" and "Traffic News Letter".

Mrs. Elspeth Huxley, the authoress and traveller, in the current issue of the "Geographical Magazine", in an article describing a 10,000 mile coast to coast drive in the U.S.A.

The number of road deaths per 10,000 cars in the United States is 13, and in Britain, 29.7. Uniformity of traffic is, in the writer's opinion, the chief factor in American safety. "The absence of flocks of wobbling bicycles, of horse-drawn carts rumbling along in the middle of the road, of motor cyclists trying to squeeze through six-inch gaps between midguards, makes the highway seem like a paradise. Almost everything on the road is a car or truck; and not only that, but a car or truck of relatively uniform size, shape, and performance."

In addition, "that famous hazard of the English roads, a car or van parked just round a blind bend", is eliminated in America, where there is a very strict rule against stopping a vehicle, even for a few moments, on the roadway. Cars have to be pulled off the road, which in America has no curb. Finally, road discipline and manners are in general better than in Britain.

86 - ADMINISTRATION AND ENFORCEMENT - General

"First Anniversary Number, Oklahoma Highway Patrol Section"
(The Daily Oklahoman, Sept. 25, 1938, entire section)

Upon the occasion of the first anniversary of the establishment of the Oklahoma Highway Patrol, the Daily Oklahoman issued a special section of their Sunday paper showing what safety results had been achieved by the patrol. These included a fatality reduction of 115.

Among the articles appearing in this section were the following:
"Kindness is Effective in Drive for Safety" by Henry W. Boggess, Head of State Safety Council;
"Safety Is Largely Up To Drivers" by Captain Ted Kurtz;
"How a Safety Council Is Organized" by J. B. White;
"7,543,125 Dollars Spent on New Highways";
"These Airmen Help the Highway Patrol in Safety Program";
"Night Accidents Reduced If You Drink Plenty of Milk";
"State Safety Council to Study Laws".

87 - ADMINISTRATION AND ENFORCEMENT - General

Michigan State Police -- Annual Report, January 1, 1937 to January 1, 1938.

The 1937 Annual Report for the Michigan State Police was recently issued by the department. In addition to descriptions of general police activities, there is a discussion on the Safety and Traffic Division together with accident and traffic enforcement summaries.

88 - ADMINISTRATION AND ENFORCEMENT - General

"At The Wheel" - Reginald Cleveland (New York Times, Aug. 7, 1938, page 6XX)

The National Safety Council's booklet, "Enforcement For Traffic Safety", deals with laws, ordinances, administration, drivers' license procedure, inspection, accident reporting, and investigation, motorization of the traffic force, parking supervision, selective enforcement, the drinking driver, "fixing" evil, etc.

Official inspection of vehicles is urged, also investigation of every accident of importance.

Alcohol above 1.5 parts per 1,000 should be regarded as conclusive evidence of dangerous alcoholic influence.

89 - CONTROL DEVICES AND METHODS - Signals

"Traffic Lights: Can They Be Improved?" (Highway Research Abstracts, No. 54, October, 1938, p.8)

The excellence of the type of traffic signals adopted in The Hague is recommended for consideration outside of Holland. The signal consists of a large circular surface protected by a hood. On this surface are twelve concentric vacuum lights -- six neon tubes for red and six mercury vapor tubes for green. When all six red rings are lighted, traffic is stationary. As time passes, one ring after another becomes extinguished, and as the last disappears the green rings flash on and traffic moves. The six green rings then successively disappear and the cycle is repeated.

Such a system possesses this very important feature: both automobile and pedestrian traffic can form a very good judgment of the time during which a particular signal will operate. Motorists see when to prepare to go and the pedestrian sees how much opportunity remains for crossing. There is only one illuminated area instead of three and there is no amber light to be abused.

A traffic light of similar principle was recently demonstrated in Massachusetts. This signal consists of an aluminum encased circle of 16 bulbs, 15 white and one red. The lights indicate the number of seconds before the light is to change. It is reported that the signal "circle" may be attached to any ordinary traffic signal.

90 - CONTROL DEVICES AND METHODS - Signs

"Larger Stop Signs" - Murray D. Van Wagoner (Highway Research Abstracts, No. 53, September, 1938, p.10)

Investigation made by the Michigan Highway Planning Survey reveals that stop sign violations have been cut 50 to 75 per cent by increasing the size of the sign. Observations were made at an intersection south of Lansing, under the following conditions:

1 - Use of old, weather-beaten and unreflectorized 24-inch signs.
2 - New 24-inch reflectorized signs.
3 - New 36-inch reflectorized signs.

A second set of observations was made for the 36-inch sign after a 30-day lapse in time.

Four thousand observations, equally divided between night and day, showed these results: Violations were about the same for the 24-inch signs and amounted to 8 per cent of motorists in the daytime and 17 per cent at night. When the new 36-inch sign was installed, however, violations dropped 50 per cent during the day and 75 per cent at night. Observers, suspecting that traffic was halted by the novelty of the sign, made further investigation in 30 days. Results this time showed a 70 per cent reduction in daylight violations and a 77 per cent reduction at night.

That these findings are of utmost importance may be realized by the fact that state police records in Michigan show that 25 per cent of all fatal accidents on trunklines during the past three years were right angle collisions at intersections. It would appear that this percentage might be reduced considerably by increasing the size of stop signs. At intersections where curves or other obstructions limit the driver's view of the stop signs, an advance warning sign of even larger dimensions may be installed.

91 - PARKING - Parking Lots

"Model Off Street Parking Provided"- Allen H. Rogers (American City Magazine, September, 1938)

To adequately handle the increasing number of cars in the prosperous village of Garden City, N. Y., the Village Board of Trustees gave practical consideration to handling parking, present and future, in the business district, with the result that Section I, an immediate part of an ultimate plan to provide municipally-owned parking facilities in all business districts as required, was developed.

Section I, costing $197,000, consists of seven adjacent parking areas back of apartment houses and stores. Land cost, amounting to about 75%, was assessed on a ten-year basis to the commercial houses benefiting, while the improvements, amounting to $46,000, were absorbed in general village expense. The cost to a taxpayer type of store over a ten-year period amounts to about $9.00 per month. No fee is charged nor is a license required for the use of these parking fields.

The advantages of this project are threefold in that it attracts customers and by thus increasing business reduces tax delinquency, defines the business district of this village of 10,000, and keeps parked cars off the residential street.

The system is entirely flexible, each field being designed to retain a natural appearance while efficiently serving the needs of the particular business benefited. Existing trees were kept where possible and 300 other trees and several thousand shrubs were planted. An ample number of signs are provided, obviating the necessity for attendants. The fields are lighted by 100 c.p. luminaires on ornamental posts, from underground circuits.

92 - REGULATIONS AND LAWS - Laws

"German Reckless Drivers Will Have Tires Deflated" (New York Times, October 15, 1938, Section I)

A new order on October 15th in Germany said that traffic police may deflate the tires of "road hogs" and reckless drivers right at the spot where they are caught.

Authorities explained the need of severe measures by the fact that despite more stringent control the annual average of 8,000 persons killed and 175,000 injured on Germany's highways remains almost stationary.

The tire deflation order will operate in cases where drivers pass on the wrong side of the road, neglect to slow down when approaching main roads, or turn corners at excessive speeds.

Offenders also may be fined or have their licenses taken away

for a period of one week to three months.

93 - SAFETY ACTIVITIES - General

"419 Lives Saved" - Staff Article (Safety Engineering, September, 1938, pages 23,24,26)

The result of a long range program of Education, Engineering, and Enforcement in the state of Pennsylvania was a saving of 419 lives during the first six months of 1938. This reduction places the state in the van of all states which are experiencing a reduction.

Among the activities which contributed to the good record were: Junior Safety Councils, production of the movie "Play Safe", newspaper and radio publicity, construction of truck lanes on hills, relocation of sections of roadway, and enforcement of the statewide 50 MPH speed limit. Drivers found guilty of speeding have had their driver's licenses suspended for 90 days.

Hearing points for speed law violators were set up in 24 communities throughout the state. During the first six months 3,243 licenses were suspended.

Other factors in the accident reduction were the placing of safety advertising in daily newspapers, increase in the number of speed limit signs, and an increase in the personnel of the Pennsylvania Motor Police.

94 - STREETS AND HIGHWAYS - General

"Penn-Ways" - a new publication (September, 1938)

A new monthly publication started with the September issue to cover the work of the Pennsylvania Department of Highways. The editor is Jesse Laventhol. Beautiful photographs and drawings illustrate progress being made in the highway system.

Among its articles are the following:

(1) "Administration Plans Another Superhighway". This presents a plan for a 20-mile $27,000,000 divided highway through Pittsburgh for routes served by the Lincoln and William Penn highways. Grade separations, elevated structures and tunnels will eliminate 68 traffic lights and save two hours of travel and will accommodate traffic from the South Penn toll road. Drawings show the important grade separations and junctions.

(2) "Traffic Must Go Through", which describes the maintenance, regular and emergency.

(3) "The Superhighway Emerges". This article shows photographs of the old tunnels and other relics of the South Penn Railroad to be converted into an express highway from near Harrisburg to near Pittsburgh.

(4) "The Nation's Greatest Highway System" maps 40,600 miles of road and 27,000 bridges in Pennsylvania.

95 - STREETS AND HIGHWAYS - Lighting

"At The Wheel" - Reginald Cleveland (New York Times, Aug.14,1938,p.6XX)

New York's State Bureau of Motor Vehicles in its 13th annual

report points out the deadliness of night accidents. Forty-five per cent of all accidents occur at night, but these are 57 per cent of the fatal accidents, and in view of the reduced traffic at night, the dark highway is found to be a very dangerous place.

In Rochester sodium lights on five miles of St. Paul Boulevard have cut night accidents 55 per cent; at Binghamton, 67 per cent.

Night fatalities in New Jersey have been cut by lights on the equivalent of 220 miles in municipalities. Lights are spaced 200 feet apart. Sodium lamps are being contrasted with white lights to determine which are best.

96 - STREETS AND HIGHWAYS - General

"Peru Peaks Linked to Amazon" - William Lavarre (New York Times, September 18, 1938, p. XX)

On Sundays, Tuesdays, Thursdays, and Saturdays you may go down to the Amazon steamer from the Andes crest near Lima; on the even days you may return. Another of the world's "impossible" transcontinental connections has been accomplished. This new tortuous highway from the 16,000-foot snows of the Andes through the precipitous canyons of the Huallaga River and across the tropical forests to Pucalpa will carry petroleum products and copper to Brazil and hardwood to the factories on the Pacific coast.

97 - STREETS AND HIGHWAYS - Lighting

"Road Lights Get Better" - E. L. Yordan (New York Times, September 25, 1938, p. 8XX)

The White Horse Pike is now lighted with incandescent luminaires of hemispherical reflectors combined with prismatic reflectors to direct a large percentage of generated light toward the pavement in an elongated oval pattern. Another Jersey improvement is the sodium lighting of two miles of road about the intersection of routes 2 and 6. Accidents have been cut in half where such lighting has been employed.

Indirect lighting consisting of light reflected back onto the road by roadside reflectors energized by rays from the headlights has been installed between Detroit and Lansing. These outline the road for a mile ahead except at curves or where obstructed. The cost is $346 per mile as against $3,000 to $4,000 for general illumination.

Night traffic amounting to 70,000,000,000 vehicle miles is about one-quarter of the total traffic, but six out of ten fatal accidents occur at night. On the average road, night driving is rated as five times as dangerous per mile as day driving. Reduced visibility is the main trouble, though drunken driving is four times as common at night as in the day.

98 - STREETS AND HIGHWAYS - Street Cleaning

"Street Cleaning Practice" (Published by American Public Works Association, 1313 East 60th Street, Chicago, Ill. 407 pages)

The field of street cleaning practice has long needed a comprehensive and authoritative treatise. The administration and operation of street cleaning service, although quite complicated, has been generally regarded by public officials and citizens and even by some street cleaning

executives themselves as static -- not subject to those objective studies and improvements that have proved so beneficial in other municipal fields. This attitude "Street Cleaning Practice" shows to be completely fallacious.

The book is the result of more than two years' effort by the American Public Works Association's Street Cleaning Committee to assemble and organize the knowledge available in the country on the proper conduct of this important municipal activity. The broad knowledge and wide experience of these committee members combined with that of some 90 other street cleaning administrators throughout the United States and Canada form the basis of the statements on management techniques and operating practices.

In presenting the subject, the book first gives an over-all, well integrated picture of what the street cleaning problem is, and then goes on to analyze in considerable detail the host of factors that must be appraised in any determination of the proper street cleaning methods to be employed in any given situation.

There is presented a complete description of the methods and equipment now available for use. Each method is explained and analyzed in detail. A following chapter discusses the manner in which a street cleaning system is planned in the light of the conditions that must be faced.

Other chapters deal with reducing the amount of street litter, leaf collection, catch basin cleaning, snow removal, and the elimination of icy conditions and European practices.

The last part of the book deals with problems of administration and includes chapters on organization, personnel, management of equipment, and street cleaning records, costs, and budgets.

"Street Cleaning Practice" is richly illustrated with pictures, charts, diagrams, and forms.

99 - SUBJECTS RELATED TO TRAFFIC - Vehicle Design

"At The Wheel" - Reginald Cleveland (New York Times, August 21, 1938, p. 4XX)

The Rubber Manufacturers Association report that tire failures are 20 per cent more numerous per million gallons of gasoline consumed in summer than in winter. At 90 degrees tires wear twice as fast as at 60 degrees, but major troubles come from heat generated inside by flexing so that internal temperature may reach 350 in a truck tire. Cotton cord is only half as strong at 285 degrees as when cold. Air pressure should be measured when the tire is cool, and on hot days air should not be let out, as this would increase the heat generated by flexing.

100 - TRANSPORTATION - General

"Motor Transportation - A Forward View" (Discussion) - R. L.Morrison (Member I.T.E.) (Proceedings, American Society of Civil Engineers, September, 1938, pp. 1500-1502)

The maximum speed of automobiles has increased from about 58 miles per hour in 1926 to about 87 miles per hour in 1937. This is an increase of 50 per cent in 11 years and the curve is almost a straight line, with practically no indication that a top limit is even being approached.

Investigations made by the Michigan State Highway Department in 1936 showed average speeds of less than 50 miles per hour, but the fastest 15 per cent of vehicles were driven more than 65 miles per hour and on one route 70 miles per hour. Darkness slowed down this fastest 15 per cent only two or three miles per hour, although with good brakes and lights they could not possibly stop before hitting a dark object on the road.

While the maximum speed of vehicles was increased 50 per cent between 1930 and 1937, the fatalities on rural roads (the only ones on which maximum speeds can be used) increased about 37 per cent and the rural night accidents increased 60 per cent. The increase in automobile registration was less than 5 per cent.

It is doubtful whether the driver had any more ability to handle cars in 1937 than in 1936. Even if his skill has improved a little, there is little evidence to show that his judgment has improved. Most accidents are caused by lack of judgment rather than lack of skill.

Public officials as well as automotive and civil engineers have a very definite responsibility to use all reasonable methods to reduce accidents. This responsibility is very far from being met in many localities. There are scarcely more than 100 traffic engineers in the United States, and when a state or city does decide to have one, the usual procedure is not to find and appoint an experienced traffic engineer, but to appoint some engineer who has no knowledge of traffic engineering.

Unfortunately, it is the spectacular that is likely to appeal most to the general public and to politicians in high places. One school bus is struck by a train and immediately almost a billion dollars is appropriated for railway grade separations, although the same sum of money spent for such things as crossing gates, better street lighting, the flood-lighting of street obstructions, and more efficient policing would probably save a vastly greater number of lives.

101 - MISCELLANEOUS - Driver Training

"Sportsmanlike Driving" - American Automobile Association

During 1936 and 1937 the American Automobile Association published five booklets, each of approximately one hundred pages, on the art of driving. These booklets have gained wide favor in the schools of the country, being used as basic texts in traffic safety.

Recently, all five booklets were revised, elaborate indexes were included, and they were combined into book form. The titles of the five sections are:

1. The Driver.
2. Driver and Pedestrian Responsibilities.
3. Sound Driving Practices.
4. Society's Responsibilities.
5. How To Drive.

Each section of the book covers its individual subject completely and accurately both by text and illustration. Of interest to the Institute is that several members are given credit for assistance in reviewing the manuscript.

* * * * * * * * *

News About the Traffic Engineering Profession

NINTH ANNUAL MEETING SUCCESSFUL

A record crowd of Institute members, guests and friends attended the Ninth Annual Meetings in Chicago, October 9 to 11. From the opening business meeting Sunday afternoon until the closing session Tuesday no idle moment existed. For the first time in the history of the Institute it was necessary to make last minute changes in all the meeting rooms to accomodate the unexpectedly large attendance.

Sunday afternoon all Committee Chairmen or representatives presented written reports. These reports contained such valuable suggestions both for the traffic engineering profession and for the Institute that President Sorenson invited the Chairmen to be present at the annual Board meeting held that evening and to re-state the highlights and recommendations of the reports.

The Biscuit Banter Breakfast held Monday morning was another highlight of the three-day convention. Mr. Simpson, Vice President of the Institute, led the breakfast in the role of "Big Bun". Aided by a group of ITE Sheriffs specially deputized for the occasion, he made the group forget traffic engineering for an hour and showed how their other half functioned. More than one hundred members and guests attended this breakfast.

Immediately following the breakfast the regular sessions opened with a town hall forum on the subject of Parking. Four interesting short papers and four ten-minute discussions were presented. Burton Marsh, serving as Chairman, kept the meeting moving at a fast pace. The remainder of the sessions maintained the same pace and interest set at the opening session. The round table and informal presentation idea followed by short but snappy discussions continued throughout all the sessions. Such interest was displayed in this type of a presentation that it is planned to follow it again next year.

The annual banquet attended by a capacity crowd of 346 was still another highlight. Considerable delay was experienced in seating the group because of the large unexpected last minute rush for tables. Thomas H. MacDonald, Chief, U. S. Bureau of Public Roads, was the principal speaker. Following his illustrated talk Mr. DeYoung, Chairman, and his associates, presented a report of the Resolutions Committee. Mr. DeYoung strongly upheld the traditions of the Resolutions Committee established in past years. The entire gathering approved the Committee report when called for a vote by President Sorenson, who served as Toastmaster for the evening.

NEW OFFICERS

The President, Vice President and Secretary were re-elected for another year. Two new members were added to the Board of Direction. The report of the Board of Tellers presented at the business meeting of the annual convention read as follows:

President - - - - - - Leslie Sorenson
Vice President - - - -Hawley Simpson
Secretary-Treasurer - Harold Hammond
Director - - - - - - -John Gibala
Director - - - - - - -Walter Rosenwald

The two members of the Board whose term expired were Howard Ilgner and Ralph Eaton.

NEW MEMBERS AND TRANSFERS

The Board at its annual meeting in Chicago took favorable action on the following applications.

NAME & ADDRESS	BOARD ACTION
Robt. H. Burrage, Asst. Highway Engr. Economists, U. S. Bureau of Public Roads, 79 Garden Street, Needham, Mass.	Associate
Merwyn A. Kraft, Accident Prevention Engineer, American Transit Ass'n., 292 Madison Avenue, New York, N. Y.	Affiliate
Philip S. Mancini, Deputy Public Service Engineer, City Hall, Providence, R.I.	Associate
Gustave E. Munch, Vice Pres. & General Manager, Welsbach Signal Company, 1619 So. 7th Avenue, Maywood, Ill.	Affiliate
Robt. H. Nau, Secretary, Street Traffic Committee, Chicago Ass'n. of Commerce, One No. LaSalle Street, Chicago, Ill.	Member
Henry W. Osborne, Bureau for Street Traffic Research, Yale University, New Haven, Conn.	Junior
Virden A. Rittgers, Traffic Engineer, Oklahoma City, 1218 N.W. 47th Street, Oklahoma City, Okla.	Associate
Harry E. Stedman, Safety Engineer, City of Des Moines, 1444 W. 44th Street, Des Moines, Iowa.	Associate

Robt. Oliver Swain, Junior
Asst. Traffic Engineer,
Texas Highway Department,
Austin, Texas.

Transfers in membership were granted to the following:

NAME & ADDRESS	TRANSFERRED TO
O. M. Gunderson, Traffic Engineer, Safety & Traffic Division, Michigan State Police, East Lansing, Mich.	Member
E. F. Koester, Traffic Engineer, City of Wilmington, P.O.Box 49, Wilmington,Delaware.	Associate
E. J. O'Meara, Traffic Engineer, Wisconsin Highway Commission, Madison, Wisconsin.	Member

Many other applications were submitted but lacked sufficient information or references. Therefore, the Board was unable to take final action on these at this meeting. Numerous other applications were deferred because of the applicant's lack of traffic engineering experience.

RESOLUTION COMMITTEE REPORTS TO MICHIGAN UNIVERSITY TRANSPORTATION LIBRARY

The Transportation Library of the University of Michigan has made a request for copies of all Resolution Committee reports. Officials of the Library feel these reports will have unusual value in years to come and that many of the remarks presented in a lighter vein will actually come to pass. They pointed out that many other professional societies have had similar committees but failed to keep copies of their reports. Should they have been kept they would have been of unestimable value. They don't intend to let this happen to the ITE Resolution Committee reports.

"TRAFFIC ENGINEERING" TO BE IMPROVED

The Board of Direction of the Institute at the annual meeting approved the recommendations of the Library Committee for making "Traffic Engineering" more attractive and of more service to its readers. The November issue will embody the new improvements. We feel certain that you will be pleased with this magazine in its new form.

TRAFFIC ENGINEERING COURSE

The Bureau of Public Safety, Rutgers University, announces a new twelve week course in traffic engineering for municipal, county and state engineers. It is directed largely to the engineers of New Jersey and given for the purpose of helping solve the problems of congestion and safety on the streets and highways of that state. Classes will be conducted on Friday afternoons each week from 2 to 5 beginning November 4, 1938 through January 20, 1939. Harold F. Hammond, Director of the Traffic Division, National Conservation Bureau, and Secretary-Treasurer of the Institute, will

be the instructor. We have been informed that anyone seeking further information about this course should communicate with the Bureau of Public Safety, University Extension Division, Rutgers University, New Brunswick, N. J.

COMMITTEES FOR 1939

President Sorenson is now busily engaged in choosing the Committee Chairmen and members for the ten active committees of the Institute. Within the next month an announcement will be made of those serving on these committees.

TRAFFIC SIGNS FOR THE PAN-AMERICAN HIGHWAY

By - I. T. Cabrera, Safety Engineer,
Cuban Safety Council,
Junior Member, I.T.E.
(Condensed)

In making the world a safer and saner place in which to dwell, due thought and consideration must be shown in planning highway systems so as to relinquish all hazards that might occur from the lack of foresight on the part of safety engineers when planning these projects. Safety and traffic engineers of neighboring countries should cooperate when developing connecting highways.

An important factor to consider is the display of traffic signs and signals to insure safety by forewarning the driver. Uniformity in color, form and dimensions must be stressed when planning a system for the Pan-American Highway, since this road will pass through a number of countries where different languages are spoken and different road habits prevail.

A good example to follow would be the system approved in 1935, in Washington, D.C. This, if agreed upon by the National Conference on Street and Highway Safety, could be used as the standard method and applied throughout Latin-American countries. This system warns drivers by presenting pictorial symbols of what lies ahead, such as the condition of the road, distance between towns, speed laws and regulations governing each state or city, etc.

An international committee of men with traffic engineering experience would be an ideal way to carry out a safety campaign throughout all South, Central and North American countries.